

Claims

1. For use in a multi-protocol Network Management System application for managing a multi-protocol layered transmissions network including a plurality of network elements, a method for generating a model of the multi-protocol layered transmissions network, the method comprising the steps of:

(a) determining the protocol layers in the multi-protocol layered transmissions network; and

(b) for each protocol layer, mapping out an overlay including the network elements operative in the protocol layer, and at least one physical link and/or the logical links interconnecting pairs of network elements where transport service along a logical link is at least partially provided by a transmission path on a protocol layer directly underlying the protocol layer, and the pair of association links between each logical link and its associated transmission path.

2. The method according to claim 1 and further comprising the step of displaying on a GUI an overlay of one protocol layer of the model with different technologies employed therein being displayed in visually distinctive manners.

3. The method according to either claim 1 ~~or 2~~ and further comprising the step of displaying on a GUI a top view of the overlays of two or more protocol layers of the model superimposed one on the other.

4. The method according to any one of claims 1 ~~to 3~~ and further comprising the step of displaying a 3D representation on a GUI of overlays of two or more protocol layers of the model including the pair of association links between each logical link and its associated transmission path.

5. A method according to claim 1, operative to distinguish between alarms generated at a client protocol layer and those generated and any of the underlying protocol layers.

5 6. A method according to claim 1, operative to allow the selection of a path in the multi-protocol layered transmissions network by using at least one selection criterion for the path to be provisioned.

7. A method according to claim 6, wherein said at least one selection
10 criterion is selected from the group comprising: distance of transmission, delay allowed in receiving the transmission, degradation of the transmitted signals, protection constrains, or any combination thereof.

8. A system comprising a processor capable of carrying out the method of
15 claim 1.

11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50

add
Q1